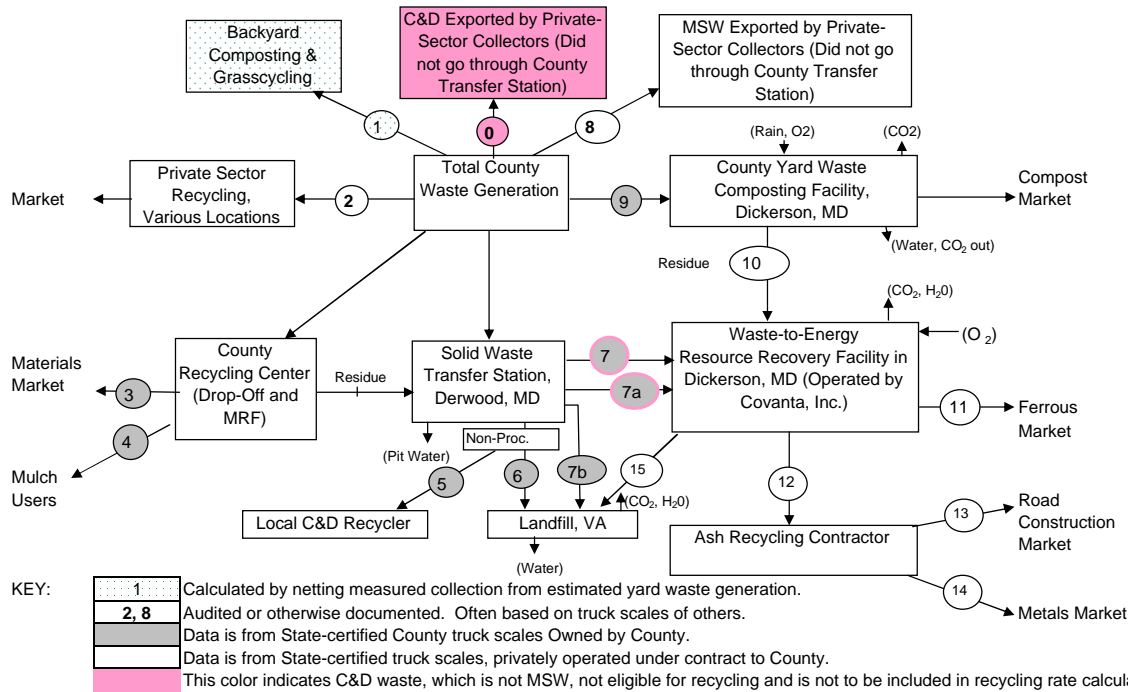


## **Appendix B**

### **Material Flow Diagram and Recycling Calculations: Fiscal Year 2008**

## MATERIAL FLOW DIAGRAM Fiscal Year 2008



Total Waste Generation, Including C&D Exported by Private Sector	1,488,636
County-Managed Waste (CMW) = 1 + 2 + 3 + 4 + 5 + 6 + 7 + 7a + 7b + 8 + 9 =	1,359,977
<b>MSW Generated (above less streams 5, 6 and 7a)</b>	<b>1,249,376</b>

Stream No.	Material Description	Sources of Data	Total (tons/yr)	Comments
0	Construction & Demo Debris Private Export	Licensed Collector Reports under ER 92-59	128,660	Not County-managed and not eligible for recycling
1	Yard Waste Source Reduction	Calculated w/ estimates & measurements	80,617	17.5% of MSW less leakage less yard waste facility tons
2	Recycled via non-County Facilities	Collector, Processor, Business & Self-Hauler Rpts.	246,585	Filtered to avoid double-counting
3	County Recycling Facility Material Sales	County TS & MRF Scales, Outbound	101,584	Outgoing to Market from County Recycling Center
4	Mulch Loaded Out From TS	County Transfer Station (TS) Scale Records	36,453	Scaled Out As Taken to Mulch Preserve Locations
5	Non-Processibles Recycled**	County TS Scale Out Records	5,057	
6	Non-Processibles Land filled**	County Trans. Stat'n. & Covanta Scale Records	75,424	
7	Loaded on Rail to RRF (MSW burned)	Covanta Scales as Loaded	549,541	Total Tons Loaded on Rail to RRF Net of 7a
7a	Loaded on Rail to RRF (C&D Burned)	County Transfer Station (TS) Scale Records	30,119	In-Bound C&D less Outbound Non-Processibles Landfilled
7b	By-pass (Accepted Processible Land filled)	County TS Scale Out Records	-	
8	Refuse Disposed Out of County	Audited 6-Mo. Hauler Reports	160,556	Private Sector MSW Collection not delivered to County TS
9	All Incoming Leaves and Grass	Compost Facility & TS Scale Records	74,040	Includes 0 to Backup Composters
10	Composting Residue to RRF	Covanta Scale Records	-	
11	Ferrous recovered at RRF	Covanta Scale Records	14,222	
12	Ash Loaded to Ash Recycling Contractor	No ash recycling at this time.	-	No ash recycling at this time.
13	Non-Metal Outgoing from ash Recycler	No ash recycling at this time.	-	No ash recycling at this time.
14	Metals (Fe, Cu, Brass, Coins)	No ash recycling at this time.	-	No ash recycling at this time.
15	All ash not recycled	Covanta Scale Records	183,441	

Recycling Rate Calculations		Numerator	Denominator	Rate	
County Recycling Rate	$(1 + 2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 5 - 6 - 7a) =$	553,501	1,249,376	44.3%	
County Recycling Rate "Without Ash"	(Same as above but without Stream 13)	553,501	1,249,376	44.3%	
State Recycling Rate	$(2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 1 - 5 - 6 - 7a) =$	465,111	1,161,006	40.1%	***
State Recycling & Reduction Rate	$(2 + 3 + 4 + 9 - 10 + 11 + 13 + 14) / (CMW - 1 - 5 - 6) + 5.0\% =$	465,111	1,161,006	45.1%	
EPA Recycling Rate	$(2 + 3 + 4 + 9 - 10 + 11 + 14) / (CMW - 1 - 5 - 6 - 7a) =$	465,131	1,161,006	40.1%	***
Notes:					
	** Nonprocessibles are Construction & Demolition-type materials: not eligible for recycling credit, but are County-managed solid waste.				
	*** For State and EPA methods, numerator and denominator exclude motor oil				
Nomenclature:	"C&D" means "Construction and Demolition" waste, exclusive of MSW, traditionally managed by the private sector, but much now comes to County TS.				
	"CMW" means "County Management Waste". It includes all MSW, whether or not exported by private sector collectors, but only C&D delivered to TS.				
	"MSW" stands for "Municipal Solid Waste", and represents the waste eligible for recycling under the State recycling law, regulations and guidelines.				
	"TS" stands for the County's "Transfer Station", located in Derwood, Maryland, just south of Gaithersburg.				